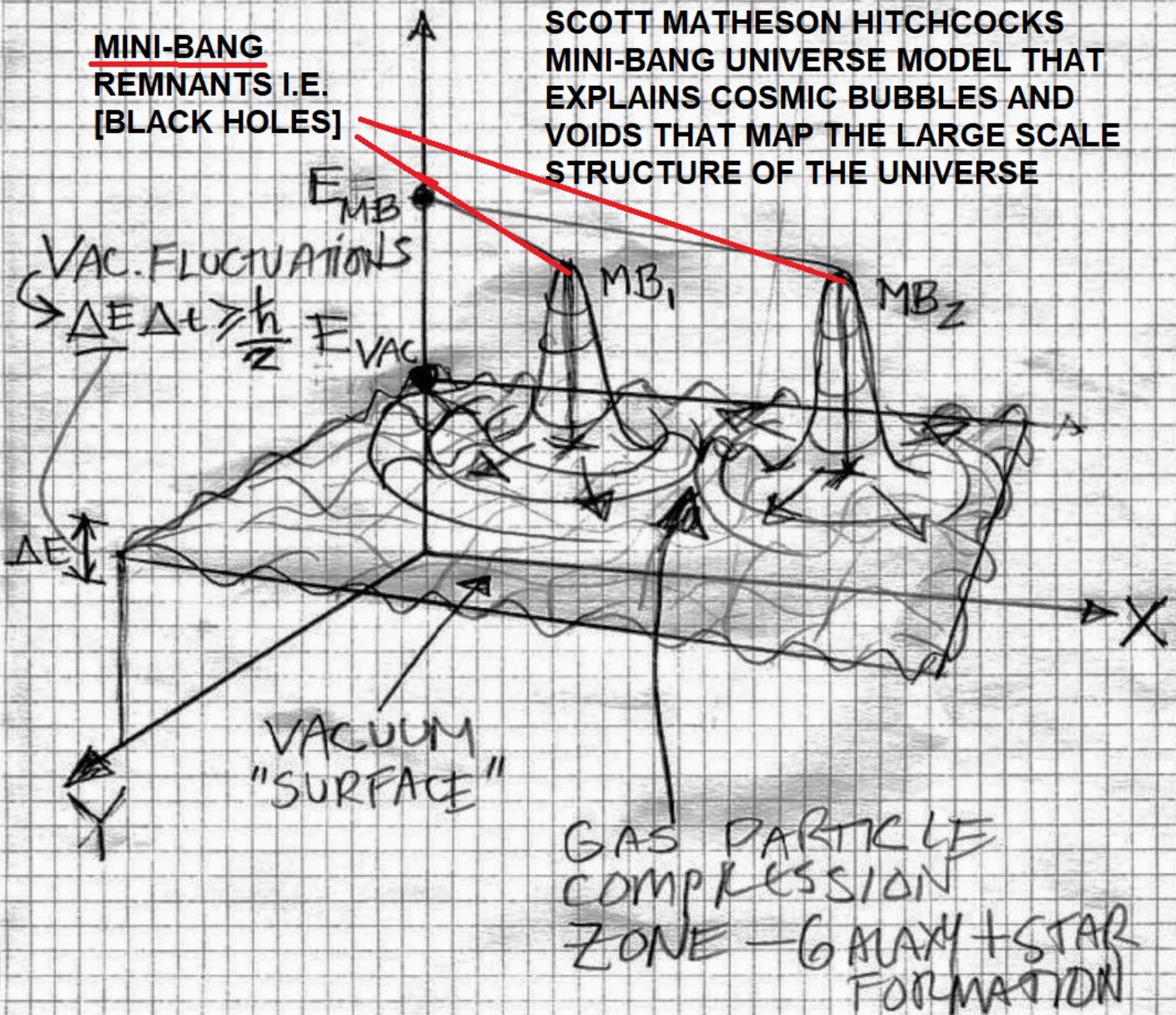


FIGURE: Looking for remnants of black hole type massive objects at the centers of cosmic voids or bubbles in the large scale structure of the universe.

This figure also shows a hypothesized mechanism for galaxy formation in the compression regions between bubbles. The Big Bang is the result of many Mini-Bangs leading to the Prediction of Remnants such as Black Holes in the center of Cosmic Voids or Bubbles in the MULTI-VACUUM States of the Universe. Missing mass and energy is found by in the various states of the vacuum in which most of the energy of the universe resides. This is an example of a relatively transparent simple analogy leading to a mostly visual conclusion about a complex reality. Here we have an example of a loaf of bread that has risen from many gas bubbles [mini-bangs] generated throughout the dough prior to cooking in the oven. The expansion of outside surface of the dough is analogous to the Big Bang 'surface' we see today as the remnant background radiation. The rising of the dough is due to the many bubbles throughout the volume of space that collectively expand creating the Big Bang as a global feature of the universe on the cosmic scale. This is the limit of credibility for such a simple model but it is these simple models that can lead to a starting point for understanding complex systems. The Planck length is shown to be a fundamental aspect of the vacuum and limits the properties of Black Holes.

MINI-BANG
REMNANTS I.E.
[BLACK HOLES]

SCOTT MATHESON HITCHCOCKS
MINI-BANG UNIVERSE MODEL THAT
EXPLAINS COSMIC BUBBLES AND
VOIDS THAT MAP THE LARGE SCALE
STRUCTURE OF THE UNIVERSE



IT WAS PROPOSED IN 1991 BY SCOTT MATHESON HITCHCOCK THAT APPARENTLY EMPTY COSMIC BUBBLES THROUGHOUT THE UNIVERSE WHOSE SURFACES ARE POPULATED BY DENSE MATTER THAT FORMED GALAXIES WERE THE RESULT OF MINI-BANG EXPLOSIONS IN THE EARLY UNIVERSE. BETWEEN THESE 'TOUCHING' BUBBLE SURFACES ARE COMPRESSED GASES SUCH AS HYDROGEN AND HELIUM WHOSE DENSITIES ALLOW STAR AND THEREFORE GALAXY FORMATION IN THESE COLLISION SPACES BETWEEN ADJACENT BUBBLE SURFACES. ANY GIVEN BUBBLE ALONG WITH THE OTHER PACKED SPHERES BUBBLES AROUND IT COLLECTIVELY DROVE THE ENTIRE EXPANSION OF THE UNIVERSE THAT WE CALL THE BIG BANG. THESE BUBBLES PROBABLY LEFT BLACK HOLE REMNANTS BEHIND AT THEIR CENTERS MUCH LIKE SUPERNOVAE LEAVE SUPERMASSIVE REMNANTS BEHIND AFTER EXPLODING. THE LARGE SCALE STRUCTURES EVIDENT TODAY ARE THE RESULT OF MANY MINI-BANGS THAT COLLECTIVELY CREATED AND DROVE THE EXPANSION WE CALL THE BIG BANG. IT WAS PROPOSED AT THAT TIME THAT A SEARCH FOR BLACK HOLES AT THE CENTERS IF THESE BUBBLES COULD BE DONE BY LOOKING FOR OPTICAL GRAVITATIONAL LENSING EFFECTS OF BACKGROUND GALAXIES WHOSE LIGHT HAS CHANGED PATHS NEAR THESE BLACK HOLES CREATING WELL KNOW IMAGING EFFECTS OBSERVED IN RELATIVE NEARBY AND HEAVILY POPULATED REGIONS OF SPACE.